UtilityScan™

Locate and Map Underground Utilities with GPR

UtilityScan is the industry standard ground penetrating radar solution for the designation of subsurface utilities. With UtilityScan, users can quickly identify and mark the location and depth of service utilities – gas, communications, sewer lines – and other metallic and non-metallic targets including underground storage tanks and PVC pipes.

The UtilityScan family is configurable and provides the flexibility to address a wide range of utility applications. The selection of the appropriate antenna and cart tailor UtilityScan beyond utility operation to address NDT and environmental applications, including bridge deck assessment and concrete scanning.

Regardless of the configuration, UtilityScan delivers exceptional data quality while being rugged enough to stand up to years of field use.

Typical Uses

- Utility detection – metallic and non-metallic
- Environmental remediation
- Damage prevention
- Road inspection
- Geological investigation
- Archaeology and forensics

Designate Targets

- Real-time data collection
- Back up cursor allows the user to accurately locate targets

Premium Mobility

- Easy to transport
- Durable components tested to withstand the toughest conditions

Integrated System

- Windows® CE operating system
- Ability to store and replay data
- GPS integration

Value

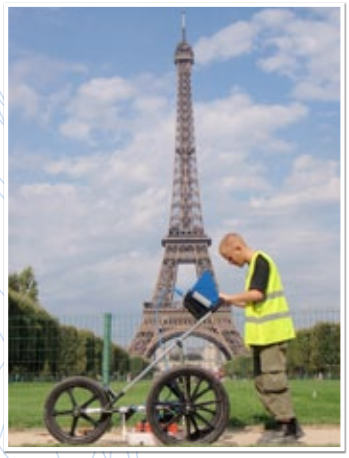
- Multiple antenna options
- Flexible system for concrete and bridge inspection applications
- Two-year warranty

GSSI

www.geophysical.com

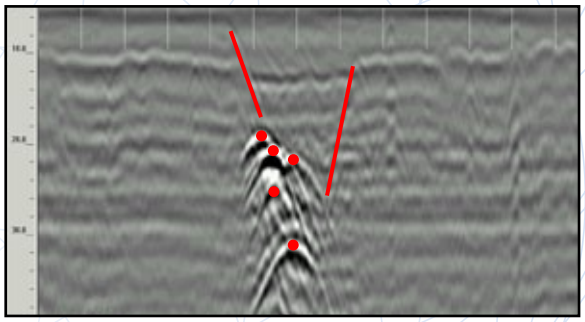
UtilityScan Solutions

Utility locators, construction professionals, environmental firms and land surveyors need a reliable, non-destructive method to locate subsurface targets prior to digging, trenching, conducting site assessments and mapping.



Locate and Map Underground Utilities

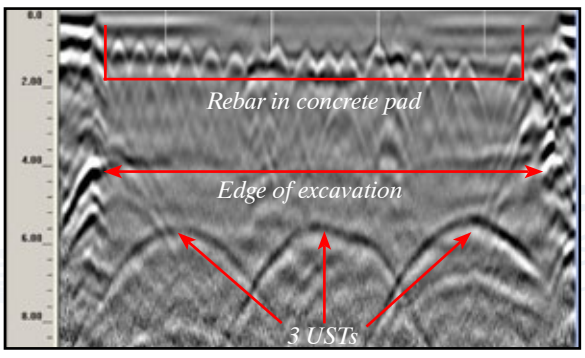
Designate the location and position of metallic and non-metallic pipes in real time using the GSSI UtilityScan. GPR can enhance one's overall understanding of subsurface targets and obstructions.



UtilityScan data showing a duct bank with five utilities. Also shown is a well-defined excavation trench.

Locate Underground Storage Tanks

Use UtilityScan to accurately pinpoint underground storage tanks and associated piping.



UtilityScan data depicting storage tanks under concrete pad

Survey Solutions

Survey Cart Options

Rugged Cart

- Weather resistant design
- Multiple antenna options (2600 MHz to 270 MHz)
- Internal integrated survey wheel encoder
- Removable, 16 inch wheels (41 cm)
- Marking paint can holders
- Compatible with SIR-3000 control unit
- Dimensions: 30.1 x 47.9 x 41.8 inches (76.4 x 121.6 x 106.1 cm)
- Antenna centerline to front of cart: 19 inches (48.3 cm)
- Weight: 58 pounds (26.3 Kg)
- Model 643

Compact Cart

- Compact, weather resistant design
- Multiple antenna options (2600 MHz to 400 MHz)
- Internal integrated survey wheel encoder
- Removable, 12 inch wheels (30 cm)
- Compatible with SIR-3000 control unit
- Dimensions: 24.3 x 39.4 x 40.3 inches (61.7 x 100 x 102.4 cm)
- Antenna centerline to front of cart: 15 inches (38.2 cm)
- Weight: 48 pounds (21.7 Kg)
- Model 653

Standard Cart

- Lightweight and foldable design
- Multiple antenna options (2600 MHz to 400 MHz)
- Integrated survey wheel encoder
- 20 inch front and 24 inch back wheels (51 cm, 61 cm)
- Compatible with SIR-3000, SIR-20, SIR-2000 control units
- Dimensions: 24.9 x 53.3 x 45.8 inches (63.2 x 135.2 x 116.3 cm)
- Antenna centerline to front of cart: 31.6 inches (80.2 cm)
- Weight: 39 pounds (17.7 Kg)
- Model 623

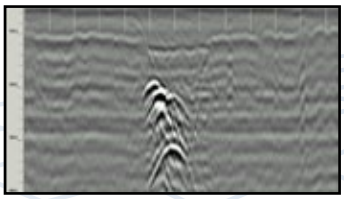
Antenna Options

0 - 12 feet*
(0 - 4 m)
400 MHz Antenna

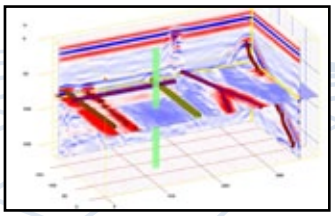
0 - 18 feet*
(0 - 6 m)
270 MHz Antenna

*under ideal soil conditions

Data Options



Real-time 2D Profiles



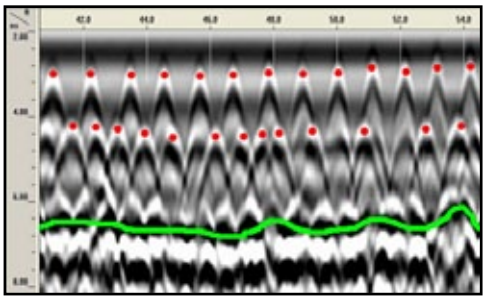
RADAN 3D Data

UtilityScan Flexibility

The UtilityScan flexibility allows you to convert the system to address different applications, including:

Concrete Scanning and Inspection

Use a high frequency antenna to designate reinforcing steel and conduit within concrete structures prior to cutting or coring. Collect quantifiable data on rebar location and areas of deterioration.



Bridge Deck Inspection

By substituting the standard utility antennas with a high frequency antenna, users can determine the condition of aging bridge decks, parking structures and obtain accurate concrete cover depth on new structures.

System Includes

- SIR-3000 control unit
- 400 MHz or 270 MHz antenna
- Choice of cart option
- Control cable
- Transit case for SIR-3000
- Two batteries and battery charger
- AC adapter
- User manual
- Sun shade

Control Unit Specifications

- Image Capacity: Internal: 500 2' x 2 ' data images
- External Memory: Based on Compact Flash size
- Internal Memory: 2 GB
- Display: 8.4 inch, full-color, 800 x 600 resolution 64K colors, clearly visible in sunlight
- Post-processing: On-screen
- Battery: Internal (3 hours), 10.8 VDC
- Ports: RS232, compact flash memory, USB master & slave
- Environmental: Water-resistant

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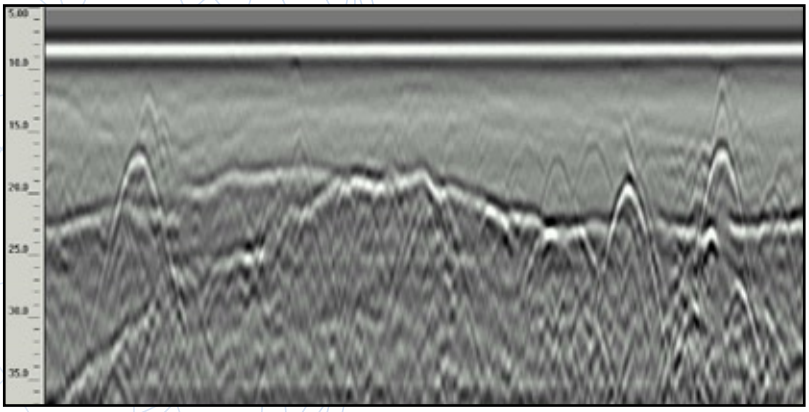
Utility Locating Antenna Solutions

400 MHz Antenna

The 400 MHz is ideally suited for detection and mapping of utility pipes, as well as shallow engineering and environmental applications.

- Center Frequency: 400 MHz
- Depth Range: 0-12 ft (0-4 m)
- Weight: 11 lbs (5 kg)
- Dimensions: 12 x 12 x 6.5 in (30 x 30 x 17 cm)
- Model 5103A

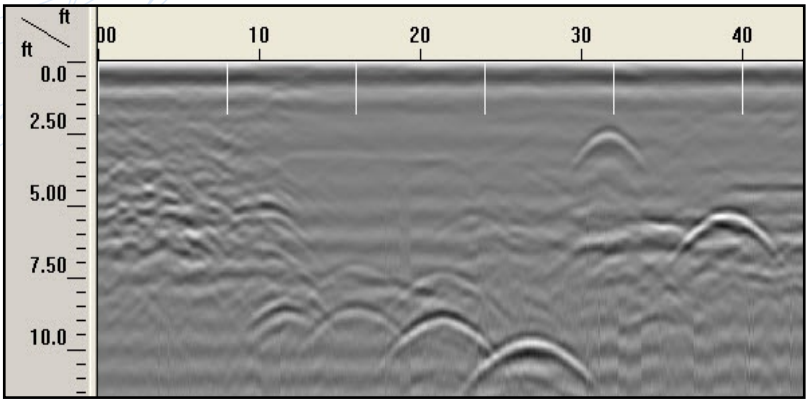


Data showing several utilities with bedrock horizon.

270 MHz Antenna

The 270 MHz is ideally suited for detection and mapping of utility pipes, as well as shallow engineering and environmental applications.

- Center Frequency: 270 MHz
- Depth Range: 0-18 ft (0-6 m)
- Weight: 18.5 lbs (8.6 kg)
- Dimensions: 18 x 18 x 6.5 in (45 x 45 x 17 cm)
- Model 5104 (U.S.), Model 5104A (International)



Six miscellaneous utilities at multiple depths with backfill on left side.

Software Solutions: Interactive 3D

RADAN Software

RADAN™ is GSSI's post-processing software. With its modular design, this program allows users to select the processing functions that best suit their needs.

RADAN is Windows™ based, providing a familiar and easy-to-use environment for all levels of experience.

Get More from Your Data with RADAN's Interactive 3D Module

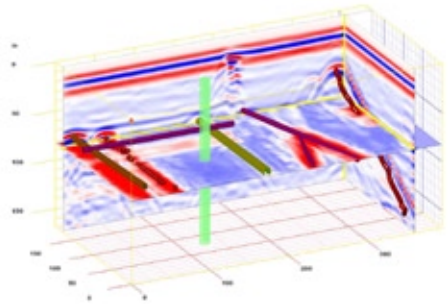
RADAN's Interactive 3D Module provides powerful features for post-processing GSSI's GPR data and offers enhanced 3D viewing options in a single dialog box. Features include:

User-Friendly Interface

- Built for all levels of experience-RADAN's Interactive 3D Module is a Windows™ based software program that provides a familiar and easy-to-use setting for post-processing GPR data.
- Enhanced and simplified 3D viewing.

Easy Data Processing

- Take some of the human error out of the equation with semi-automatic mapping of rebar locations and depths on simple concrete structures.



Interactive Interpretation

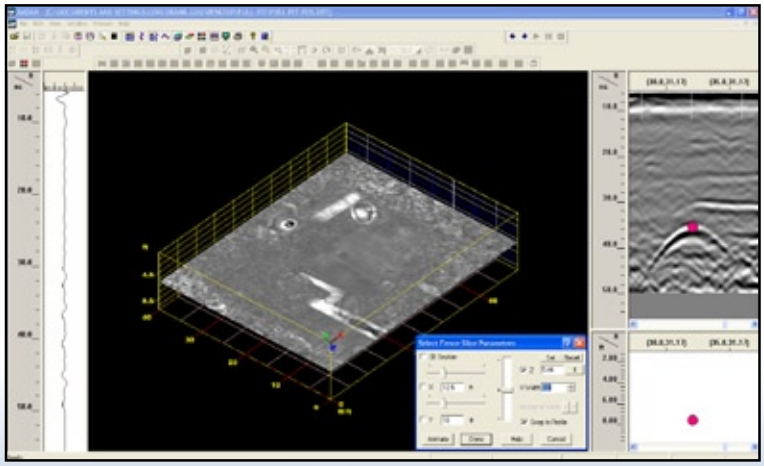
- Draw in or edit shapes that relate to your survey site (i.e. pipes, drums, line).
- Stretch, shrink or zoom-in on files as desired for customized presentation results.
- Slice through segments of data along various planes for easy interpretation and supplementary information.
- Analyze multiple views of 2D and 3D data simultaneously.

Module Versatility

- This module allows for a broad range of civil/structural applications, including structures with different types of reinforcement. Use the Structure ID Module in other applications to automatically find point targets such as utility crossings or archaeological features with lower frequency antennas.

GPS Integration

- GSSI's external data logger accepts data from any GPS outputting the NMEA GCA format.



Generic Output Files

- Outputs files for integration into AutoCAD (2D & 3D .dxf) and ArcGIS (.shp).

Help Feature

- Help feature includes key information, several "how to" guides, index and search feature.

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